UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,595	01/04/2002	Michael Edward Baskey	ROC920010193US3	6369

7590 09/07/2005	EXAMINER

Gero G. McClellan
Moser, Patterson & Sheridan, L.L.P.
3040 Post Oak Boulevard, Suite 1500
Houston, TX 77056-6582

	LAZARO, DAVID R

ART UNIT	PAPER NUMBER
2155	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/037,595	BASKEY ET AL.
	Examiner	Art Unit	
	David Lazaro	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *23 June 2005*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-3,5-10,12,13 and 15-34* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-3,5-10,12,13 and 15-34* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All   b)☐ Some * c)☐ None of:

    1. ☐ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____.

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to the amendment filed 6/23/05.

2.   Claims 1, 6, 7-10, 12, 16-20, 24, 26 and 28-32 were amended.

3.   Claims 4, 11 and 14 are canceled.

4.   Claims 1-3, 5-10, 12, 13 and 15-34 are pending in this office action.

Response to Amendment/Arguments

5.   Applicant's arguments with respect to claims 1-3, 5-10, 12, 13 and 15-34 have

been considered but are moot in view of the new ground(s) of rejection.

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.

Claim Objections

7.   Claims 12, 17, 18 and 24 are objected to because of the following informalities:

Each of these claims contains the element "sockets server application". The

amendment seems to favor the language of "server application" as opposed to the

"sockets server application". It is not clear if these claims were intended to keep the

language of "sockets server application". Appropriate correction/explanation is required.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 1-3, 5-10, 12-13, 15-21 and 24-31 are rejected under 35 U.S.C. 103(a) as

being unpatentable over U.S. Patent Application Publication 2003/0217184 by Nair

(Nair) in view of U.S. Patent 6,055,576 by Beighe (Beighe).

10.   With respect to Claim 1, Nair teaches a method of processing messages in a

computer comprising: in response to a request from a server application, allocating a

system supplied buffer to the server application (Page 3 [0025]), wherein the server

application is configured to exchange data with a client application running on another

computer (Page 2 [0020]) and wherein the system supplied buffer is of a sufficient size

to contain the data (Page 3 [0025]); writing the data to the system supplied buffer (Page

3 [0025] and [0028]-[0030]); passing the system supplied buffer to a communication

layer to allow the server application to continue processing while the data is sent to the

client (Page 3 [0028]-[0030]); and sending the data from the system-supplied buffer to

the other computer via a network (Page 3 [0028]-[0030]); and freeing memory

consumed by the system supplied buffer (Page 3 [0028]-[0030]). Nair further teaches

communications between machines on a network are typically handled through a

protocol such as TCP (Page 1, [0002], Page 2-3 [0019] and [0022]).

Nair does not explicitly disclose using a networked based socket. However, Beighe teaches that TCP is a well known protocol that implements networked based sockets in order to allow a server application to communicate with a client application (Col. 2 lines 46-62). The sockets at the TCP/IP layer are used in conjunction with buffers for receiving and transmitting messages (Col. 3 lines 9-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Nair and modify it as indicated by Beighe such that the method further comprises wherein the server application is configured to exchange data with a client application running on another computer using a network based socket; passing the system supplied buffer to the network-based socket to allow the server application to continue processing while the data is sent to the client; and sending, by way of the network-based socket, the data from the system-supplied buffer to the other computer via a network. One would be motivated to have this, as communications between servers and clients are commonly implemented through TCP sockets (In Beighe: Col. 2 lines 46-62), and Nair specifically suggests and implements the use of TCP for communicating between servers and clients (Page 1, [0002], Page 2-3 [0019] and [0022]).

11.   With respect to Claim 2, Nair in view of Beighe teaches all the limitations of Claim 1 and further teaches the messages are client-server messages (In Nair: Page 3 [0030] and Page 1 [0002]) and (In Beighe: Col. 2 lines 46-62).

12.   With respect to Claim 3, Nair in view of Beighe teaches all the limitations of Claim

1 and further teaches the data is sent over a sockets streaming protocol (In Nair: Page

1, [0002], Page 2-3 [0019] and [0022]) *and* (In Beighe: Col. 2 lines 46-62).

13.   With respect to Claim 5, Nair in view of Beighe teaches all the limitations of Claim

1 and further teaches wherein sending is performed without first copying the data into

another buffer (In Nair: Page 2 [0021]).

14.   With respect to Claim 6, Nair in view of Beighe teaches all the limitations of Claim

1 and further teaches the writing is performed by the server application (In Nair: Page 2

[0020] and Page 3 [0025]-[0030]).

15.   With respect to Claim 7, Nair in view of Beighe teaches all the limitations of Claim

1 and further teaches prior to providing the system supplied buffer to the server

application: receiving, by a socket, other data from the another computer via the

network; and allocating the system-supplied buffer to contain the other data (In Nair:

Page 3 [0025]).

16.   With respect to Claim 8, Nair in view of Beighe teaches all the limitations of Claim

1 and further teaches wherein providing the system-supplied buffer to the server

application comprise acquiring, by a socket, the system-supplied buffer from memory

space not allocated to the server application (In Nair: page 3 [0025]).

17.   With respect to Claim 9, Nair in view of Beighe teaches all the limitations of Claim

1 and further teaches wherein the system-supplied buffer is provided to the server

application by a socket in response to a buffer acquisition function call from the server

application (In Nair: Page 3 [0025]).

18.   With respect to Claim 10, Nair in view of Beighe teaches all the limitations of

Claim 1 and further teaches wherein the system-supplied buffer is provided to the

server application by a socket after the sockets server application requests client data

received over a client connection with the another computer (In Nair: Page 3 [0025] and

[0030]).

19.   With respect to Claim 12, Nair teaches a computer readable medium containing

a communications program which, when executed by a computer, performs operations

for processing messages, the operations comprising: in response to a request from a

server application, allocating a system supplied buffer to the server application (Page 3

[0025]), wherein the server application is configured to exchange data with a client

application running on another computer using the communications program (Page 2

[0020] and Page 3 [0030]), and wherein the system supplied buffer is of a sufficient size

to contain the data (Page 3 [0025]); receiving the system-supplied buffer from the

sockets server application, wherein the system-supplied buffer contains data written to

the system-supplied buffer by the server application (Page 3 [0025] and [0028]-[0030]);

sending, by way of the communications program, the data from the system supplied

buffer to the another computer via a network (Page 3 [0025] and [0028]-[0030]), thereby

allowing the server application to continue processing while the data is sent to the client

(Page 3 [0028]-[0030]); and returning the allocated system supplied buffer to the

computer (Page 3 [0028]-[0030]). Nair further teaches communications between

machines on a network are typically handled through a protocol such as TCP (Page 1,

[0002], Page 2-3 [0019] and [0022]).

Nair does not explicitly disclose the communications program is sockets based. However, Beighe teaches that TCP is a well known protocol that implements networked based sockets in order to allow a server application to communicate with a client application (Col. 2 lines 46-62). The sockets at the TCP/IP layer are used in conjunction with buffers for receiving and transmitting messages (Col. 3 lines 9-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the medium disclosed by Nair and modify it as indicated by Beighe such that the communications program is sockets based. One would be motivated to have this, as communications between servers and clients are commonly implemented through TCP sockets (In Beighe: Col. 2 lines 46-62), and Nair specifically suggests and implements the use of TCP for communicating between servers and clients (Page 1, [0002], Page 2-3 [0019] and [0022]).

20.   With respect to Claim 13, Nair in view of Beighe teaches all the limitations of Claim 12 and further teaches the messages are client-server messages (In Nair: Page 3 [0030] and Page 1 [0002]) and (In Beighe: Col. 2 lines 46-62).

21.   With respect to Claim 15, Nair in view of Beighe teaches all the limitations of Claim 12 and further teaches wherein sending is performed without first copying the data into another buffer (In Nair: Page 2 [0021]).

22.   With respect to Claim 16, Nair in view of Beighe teaches all the limitations of Claim 12 and further teaches the writing is performed by the server application (In Nair: Page 2 [0020] and Page 3 [0025]-[0030]).

23.   With respect to Claim 17, Nair in view of Beighe teaches all the limitations of

Claim 12 and further teaches prior to allocating the system-supplied buffer to the

sockets server application: receiving, by the communications program, over a socket

(In Beighe: Col. 2 lines 46-62), other data from the another computer via the network;

and allocating the system-supplied buffer to contain the other data (In Nair: Page 3

[0025]).

24.   With respect to Claim 18, Nair in view of Beighe teaches all the limitations of

Claim 12 and further teaches wherein providing the system-supplied buffer to the server

application comprise acquiring, by a socket, the system-supplied buffer from memory

space not allocated to the server application (In Nair: page 3 [0025]).

25.   With respect to Claim 19, Nair in view of Beighe teaches all the limitations of

Claim 12 and further teaches wherein the system-supplied buffer is provided to the

server application by the communication program using a socket (In Beighe: Col. 2 lines

46-62) in response to a buffer acquisition function call from the server application (In

Nair: Page 3 [0025]).

26.   With respect to Claim 20, Nair in view of Beighe teaches all the limitations of

Claim 12 and further teaches wherein the system-supplied buffer is provided to the

server application by a receive operation issued from the server application and wherein

the system-supplied buffer contains client data from another computer (In Nair: Page 3

[0025] and [0028]-[0030]).

27.   With respect to Claim 21, Nair in view of Beighe teaches all the limitations of

Claim 20 and further teaches wherein providing the system-supplied buffer comprises

allocating the system-supplied buffer according to a size of the client data (In Nair: Page 3 [0025]).

28.   With respect to Claim 24, Nair teaches a computer in a distributed environment, comprising: a network interface configured to support a network connection with at least one other computer in the distributed environment (Page 1 [0002], [0004],[0005], Page 2 [0020] and Page 3 [0023]); a memory containing contents comprising: an operating system (Page 2 [0014]-[0019]) ; a server application (Page 1 [0002], (Page 2 [0014]-[0019]), Page 3 [0025], [0030]); a communication facility (Page [0018]-[0019]); a system-owned memory space from which to allocate system-supplied buffers (Page 3 [0025]); and an application owned memory space owned by the sockets server application (Page 2 [0020] and Page 3 [0027]-[0030]); and a processor configured by at least a portion of the contents to perform operations for processing client-server messages, the operation comprising: in response to a request from the server application, allocating a system supplied buffer to the server application (Page 3 [0025]), wherein the server application is configured to exchange data with a client application running on another computer using the communications facility (Page 2 [0020] and Page 3 [0030]), and wherein the system supplied buffer is of a sufficient size to contain the data (Page 3 [0025]). Nair further teaches communications between machines on a network are typically handled by the communications facilities through a protocol such as TCP (Page 1, [0002], Page 2-3 [0019] and [0022]).

Nair does not explicitly disclose a sockets-based communication facility and further using a network based socket. However, Beighe teaches that TCP is a well

known protocol that that is sockets-based and implements networked based sockets in order to allow a server application to communicate with a client application (Col. 2 lines 46-62). The sockets at the TCP/IP layer are used in conjunction with buffers for receiving and transmitting messages (Col. 3 lines 9-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the comptuer disclosed by Nair and modify it as indicated by Beighe such that the computer further comprises a sockets based communication facility and wherein the server application is configured to exchange data with a client application running on another computer using a network based socket. One would be motivated to have this, as communications between servers and clients are commonly implemented through TCP sockets (In Beighe: Col. 2 lines 46-62), and Nair specifically suggests and implements the use of TCP for communicating between servers and clients (Page 1, [0002], Page 2-3 [0019] and [0022]).

29.   With respect to Claim 25, Nair in view of Beighe teaches all the limitations of Claim 24 and further teaches the messages are client-server messages (In Nair: Page 3 [0030] and Page 1 [0002]) and (In Beighe: Col. 2 lines 46-62).

30.   With respect to Claim 26, Nair in view of Beighe teaches all the limitations of Claim 24 and further teaches the data is sent over a sockets streaming protocol (In Nair: Page 1, [0002], Page 2-3 [0019] and [0022]) and (In Beighe: Col. 2 lines 46-62).

31.   With respect to Claim 27, Nair in view of Beighe teaches all the limitations of Claim 24 and further teaches wherein sending is performed without first copying the data into another buffer (In Nair: Page 2 [0021]).

32.   With respect to Claim 28, Nair in view of Beighe teaches all the limitations of

Claim 24 and further teaches wherein providing the system-supplied buffer to the server

application comprises acquiring, by the socket, the system supplied buffer from the

system-owned memory space (In Nair: Page 3 [0025]).

33.   With respect to Claim 29, Nair in view of Beighe teaches all the limitations of

Claim 24 and further teaches writing data into the system-supplied buffer; returning the

system-supplied buffer to the socket-based communication facility; and sending the

data form the system supplied buffer to the at least one other computer (In Nair: Page 3

[0025]-[0030]).

34.   With respect to Claim 30, Nair in view of Beighe teaches all the limitations of

Claim 29 and further teaches wherein the system-supplied buffer is retuned to the

socket-based communication facility on a send operation and wherein sending

comprises detaching the system-supplied buffer from the send operation to allow the

server application to continue processing while the data is sent (In Nair: Page 3 [0025]-

[0030]).

35.   With respect to Claim 31, Nair in view of Beighe teaches all the limitations of

Claim 24 and further teaches the processor is configured to provide the system-supplied

buffer to the server application by the socket in response to a buffer acquisition function

call from the server application (In Nair: Page 3 [0025]).

36.   With

37.   Claims 22, 23 and 32-34 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Nair in view of Beighe as applied to claims 20 and 24 above, and

further in view of U.S. Patent 6,822,966 by Putcha et al. (Putcha).

38.   With respect to Claim 22, Nair in view of Beighe teaches all the limitations of

Claim 20 and but does not explicitly disclose wherein the receive operation is configured

with a buffer mode parameter indicating to the socket a buffer acquisition method for

acquiring system-supplied buffer.

Putcha teaches a buffer mode parameter which indicates a buffer acquisition

method for acquiring a buffer (Col. 4 lines 18-33).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to take the medium disclosed by Nair in view of Beighe and modify

it as indicated by Putcha such that the medium further comprises wherein the receive

operation is configured with a buffer mode parameter indicating to the socket a buffer

acquisition method for acquiring system-supplied buffer. One would be motivated to

have this, as there is need for efficiently allocating buffers for data transmission (In

Putcha: Col. 4 lines 7-33).

39.   With respect to Claim 23, Nair in view of Beighe and in further view of Putcha

teaches all the limitations of Claim 22 and further teaches the receive operation is

further configured with a record definition specifying to the socket a format of the client

data (In Nair: Page 2-3 [0020] and [0022]-[0025])

40.   With respect to Claim 32, Nair in view of Beighe teaches all the limitations of

Claim 24 and further teaches wherein the system-supplied buffer is provided to the

server application by a receive operation issued from the server application and wherein

the system-supplied buffer contains client data from another computer (In Nair: Page 3

[0025] and [0028]-[0030]).

Nair in view of Beighe does not explicitly disclose wherein the receive operation

is configured with a buffer mode parameter indicating to the socket a buffer acquisition

method for acquiring system-supplied buffer. Putcha teaches a buffer mode parameter

which indicates a buffer acquisition method for acquiring a buffer (Col. 4 lines 18-33).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to take the computer disclosed by Nair in view of Beighe and

modify it as indicated by Putcha such that the computer further comprises wherein the

socket is configured by a receive operation issued from the server application and

configured with a buffer mode parameter indicating to the socket a buffer acquisition

method for acquiring system-supplied buffer. One would be motivated to have this, as

there is need for efficiently allocating buffers for data transmission (In Putcha: Col. 4

lines 7-33).

41.   With respect to Claim 33, Nair in view of Beighe and in further view of Putcha

teaches all the limitations of Claim 32 and further teaches wherein providing the system-

supplied buffer comprises allocating the system-supplied buffer according to a size of

the client data (In Nair: Page 3 [0025]).

42.   With respect to Claim 34, Nair in view of Beighe and in further view of Putcha

teaches all the limitations of Claim 32 and further teaches the receive operation is

further configured with a record definition specifying to the socket a format of the client

data (In Nair: Page 2-3 [0020] and [0022]-[0025])

Conclusion

43.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to David Lazaro whose telephone number is 571-272-

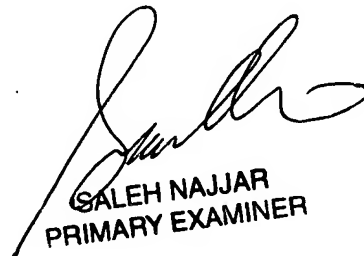3986. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Lazaro
August 31, 2005

SALEH NAJJAR
PRIMARY EXAMINER